



SAFETY DATA SHEET

Hazardous Substance, Dangerous Goods

1. MATERIAL AND SUPPLY COMPANY IDENTIFICATION

Product name: **ALLOY BRITE**

Recommended use: Metal cleaning and brightening.

Supplier: 888 Chemicals Pty Ltd
ABN 78 621 788 154
Street Address: 20 Kalman Drive
Boronia, Vic 3155
Australia

Telephone: +613 9720 8455
Facsimile: +613 9720 8417

Emergency Telephone number: Australia 0409 888 211 Email : reception@888chemicals.com.au

2. HAZARDS IDENTIFICATION

This material is hazardous according to health criteria of Safe Work Australia.



Signal Word

Danger

Hazard Classifications

Corrosive to Metals - Category 1
Skin Corrosion/Irritation - Category 1
Serious Eye Damage/Irritation - Category 1
Acute Toxicity Oral Category 2
Acute Toxicity Inhalation Category 2
Skin Corrosion /Irritation Category 1
Hazardous to aquatic environment
Short term/Acute Category 3

Hazard Statements

H290 May be corrosive to metals.
H302 Harmful if swallowed
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H335 May cause respiratory irritation.
H402 Harmful to aquatic life

Prevention Precautionary Statements

P102 Keep out of reach of children.
P103 Read label before use.
P234 Keep only in original container.
P260 Do not breathe dust, fume, gas, mist, vapours or spray.
P262 Do not get in eyes, on skin, or on clothing.
P264 Wash hands, face and all exposed skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.

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P273 Avoid release to the environment.
P280 Wear protective clothing, gloves, eye/face protection and suitable respirator.

Response Precautionary Statements

P101 If medical advice is needed, have product container or label at hand.
P301+P330+P331 **IF SWALLOWED:** Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 **IF ON SKIN (or hair):** Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 **IF INHALED:** Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338 **IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a **POISON CENTER** or doctor/physician.
P312 Call a **POISON CENTER** or doctor/physician if you feel unwell.
P321 Specific treatment (see first aid; Section 4 of this SDS).
P352 Wash with plenty of soap and water then calcium gluconate gel.
P363 Wash contaminated clothing before reuse.
P370+P378 Not combustible. Use extinguishing media suited to burning materials. Water fog or fine spray is the preferred medium for large fires
P390 Absorb spillage to prevent material damage.

Storage Precautionary Statements

P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
P406 Store in original container with a resistant inner liner.

Disposal Precautionary Statement

P501 Dispose of contents/container in accordance with local, regional, national and international regulations.

Poison Schedule: S6. Poison

DANGEROUS GOOD CLASSIFICATION

Classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

Dangerous Goods Class: 8

3. COMPOSITION INFORMATION

CHEMICAL ENTITY	CAS NO	PROPORTION
Sulphuric Acid	7664-93-9	1 - 10 % (w/v)
Ammonium Bifluoride	1341-49-7	1 - 10 % (w/v)

Ingredients determined to be non-hazardous

Balance

4. FIRST AID MEASURES

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126, New Zealand 0800 764 766). Medical attention must be provided immediately.

Inhalation: If inhalation has occurred, and irritation has developed, remove to fresh air and observe until recovered. If irritation becomes painful or persists more than about 30 minutes, seek medical advice.

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Skin Contact: Immediately after thorough washing, gently massage a liberal quantity of calcium gluconate gel if available or prepare at site by adding 10 mL of 10% calcium gluconate injectable solution to 30 mL of KY jelly or other water soluble gel. Do not use calcium chloride as it causes skin necrosis. Apply gel every 15 minutes and massage continuously until pain subsides and/or redness disappears or until medical attention becomes available. It is recommended the applier wear chemical protective gloves, (e.g. butyl rubber gloves).

Eye contact: Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for at least 20-30 minutes, by the clock, while holding the eyelid(s) open. Neutral saline solution may be used as soon as it is available. DO NOT INTERRUPT FLUSHING. If necessary, keep emergency vehicle waiting (show paramedics this SDS and take their advice). Take care not to rinse contaminated water into the unaffected eye or onto face. If irritation persists, repeat flushing. Call a Poisons Information Centre or a doctor urgently. Take special care if exposed person is wearing contact lenses.

Ingestion: If swallowed, do NOT induce vomiting; rinse mouth thoroughly with water and contact a Poisons Information Centre. Urgent hospital treatment is likely to be needed. Give activated charcoal if instructed. Seek urgent medical attention. Note comments above about calcium gluconate treatment.

Notes to physician: Treat symptomatically. Cases of eye contact and ingestion should be treated immediately. Have facilities in place to wash skin and eyes in case of exposure

5. FIRE FIGHTING MEASURES

Hazchem Code: 2X

Suitable extinguishing media: If material is involved in a fire use water fog (or if unavailable fine water spray), alcohol resistant foam, standard foam, dry agent (carbon dioxide, dry chemical powder).

Specific hazards: Not combustible. Use extinguishing media suited to burning materials. Water fog or fine spray is the preferred medium for large fires. Try to contain spills, minimise spillage entering drains or water courses.

Fire fighting further advice: If a significant quantity of this product is involved in a fire, call the fire brigade. There is little danger of a violent reaction or explosion if significant quantities of this product are involved in a fire. Recommended personal protective equipment is liquid-tight chemical protective clothing and breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

In the event of a major spill, prevent spillage from entering drains or water courses. Evacuate the spill area and deny entry to unnecessary and unprotected personnel. Wear full protective chemically resistant clothing including eye/face protection, gauntlets and self contained breathing apparatus. See below under Personal Protection regarding Australian Standards relating to personal protective equipment. Suitable materials for protective clothing include rubber, butyl rubber, neoprene, Teflon, polyethylene. Eye/face protective equipment should comprise as a minimum, protective goggles. If there is a significant chance that vapours or mists are likely to build up in the cleanup area, we recommend that you use a respirator. Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned below (section 8). Otherwise, not normally necessary. Stop leak if safe to do so, and contain spill. Absorb onto sand, vermiculite or other suitable absorbent material. If spill is too large or if absorbent material is not available, try to create a dike to stop material spreading or going into drains or waterways. Because of the corrosiveness of this product, special personal care should be taken in any cleanup operation. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Recycle containers wherever possible after careful cleaning. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. Contaminated area may be neutralised by washing with weak or dilute alkali. Baking soda, washing soda and limestone are suitable. This material may be suitable for approved landfill. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

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Dangerous Goods – Initial Emergency Response Guide No: 40

7. HANDLING AND STORAGE

Handling: Avoid eye contact and skin contact. Avoid inhalation of vapour, mist or aerosols. Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this SDS for details of personal protective measures and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

Storage: Store in a cool, dry, well-ventilated place and out of direct sunlight. Store away from foodstuffs. Store away from incompatible materials described in Section 10. Store away from sources of heat and/or ignition. Store locked up. Store in corrosive resistant container with a resistant inner liner. Keep container standing upright. Keep containers closed when not in use - check regularly for leaks. Containers should be kept closed in order to minimise contamination. Make sure that the product does not come into contact with substances listed under "Incompatibilities" in Section 10.

This material is classified as a Class 8 Corrosive as per the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and/or the "New Zealand NZS5433: Transport of Dangerous Goods on Land" and must be stored in accordance with the relevant regulations.

This material is a Scheduled Poison Schedule 6 (Poison) and must be stored, maintained and used in accordance with the relevant regulations.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

National occupational exposure limits:

	TWA		STEL		NOTICES
	ppm	mg/m3	ppm	mg/m3	
Sulphuric Acid		1	-	3	-
Ammonium Bifluoride		2.6		Not Available	

As published by Safe Work Australia.

TWA - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.

STEL (Short Term Exposure Limit) - the average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept too as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

If the directions for use on the product label are followed, exposure of individuals using the product should not exceed the above standard. The standard was created for workers who are routinely, potentially exposed during product manufacture.

Biological Limit Values: As per the "National Model Regulations for the Control of Workplace Hazardous Substances (Safe Work Australia)" the ingredients in this material do not have a Biological Limit Allocated.



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Engineering Measures: Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. Use only in well ventilated areas. Use with local exhaust ventilation or while wearing appropriate respirator. Vapour heavier than air - prevent concentration in hollows or sumps. Do NOT enter confined spaces where vapour may have collected.

Personal Protection Equipment: SAFETY SHOES, OVERALLS, GLOVES, APRON, SAFETY GLASSES, RESPIRATOR.

Wear safety shoes, overalls, gloves, apron, safety glasses, respirator. Use with adequate ventilation. If inhalation risk exists wear organic vapour/particulate respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Available information suggests that gloves made from natural rubber, nitrile rubber should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

Hygiene measures: Keep away from food, drink and animal feeding stuffs. When using do not eat, drink or smoke. Wash hands prior to eating, drinking or smoking. Avoid contact with clothing. Avoid eye contact and skin contact. Avoid inhalation of vapour, mist or aerosols. Ensure that eyewash stations and safety showers are close to the workstation location.

9. PHYSICAL AND CHEMICAL PROPERTIES

Material Family: Aqueous Formulation
Base Units: Litres
Form: Clear Liquid
Colour: Water White Liquid
Odour: Pungent

Solubility:	Miscible in water
Specific Gravity (20 °C):	1.05
Density:	N Av
Relative Vapour Density (air=1):	Same as water.
Vapour Pressure (20 °C):	2.37 kPa at 20°C
Flash Point (°C):	Does not burn.
Flammability Limits (%):	Does not burn.
Autoignition Temperature (°C):	Not applicable - does not burn.
Melting Point/Range (°C):	Below 0°C.
Boiling Point/Range (°C):	Approximately 100°C at 100kPa.
pH:	1 - 2
Viscosity:	N Av
Total VOC (g/Litre):	N App

(Typical values only - consult specification sheet) N Av = Not available, N App = Not applicable

10. STABILITY AND REACTIVITY

Chemical stability: Stable under normal temperatures and pressures.

Conditions to avoid: Avoid direct sunlight and moisture. Avoid heat and freezing conditions. Avoid storage with oxidising agents. Avoid storage with incompatible materials. It is advisable to store the product within some form of containment to prevent spillages reaching drainage systems. Avoid storage in an unstable manner or in a situation that would result in exposure to the product. Do not allow the storage container to be left exposed to the atmosphere.

Incompatible materials: Strong oxidising substances. Strong alkalis, zinc, tin, aluminium and their alloys. Fluorine, Ammonia. Ammonia compounds.

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Hazardous decomposition products: Only small quantities of decomposition products are expected from this product at temperatures normally achieved in a fire. This will only occur after heating to dryness. Combustion forms carbon dioxide, and if incomplete, carbon monoxide and possibly smoke. May form nitrogen and its compounds, and under some circumstances, oxides of nitrogen. Occasionally hydrogen cyanide gas in reducing atmospheres. May form oxides of sulfur (sulfur dioxide) is a respiratory hazard) and other sulfur compounds. Most will have a foul odour

Hazardous reactions: Can react with alkalis, metals ammonia or oxidising agents. May react violently. Combustion forms carbon dioxide, and if incomplete, carbon monoxide and possibly smoke. May form hydrogen fluoride gas and other compounds of fluorine. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death

11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Inhalation:

Short Term Exposure: Available data indicates that this product is not harmful. However product may be mildly irritating, although unlikely to cause anything more than mild transient discomfort. If liquid enters nasal passages, it will cause pain and burn nasal membranes. Patients with inhalation burns may develop acute pulmonary oedema.

Skin Contact:

Short Term Exposure: Concentrated hydrofluoric acid solutions cause immediate pain and produce surface burns similar to those produced by other common acids (e.g., erythema, blistering & necrosis). Pain typically is described as deep, burning, or throbbing and often is disproportionate to apparent skin involvement. Solutions of less than 7% may take several hours before onset of symptoms, resulting in delayed presentation, deeper penetration of the undissociated HF acid, and a more severe burn.

Eye Contact:

Short Term Exposure: This product is corrosive to eyes. It will cause severe pain, and corrosion of the eye and surrounding facial tissues. Unless exposure is quickly treated, permanent blindness and facial scarring is likely.

Ingestion:

Short Term Exposure: Mild poisoning causes nausea, vomiting, diarrhoea and abdominal pain. Blood may be vomited. Severe poisoning causes shock, blurred vision, muscle spasm, shallow breathing and convulsions. Kidney failure may occur later.

Long Term Exposure: Intake of more than 6 mg of fluorine per day may result in fluorosis, bone and joint damage. Hypocalcemia and hypomagnesemia can occur from absorption of fluoride ion into blood stream.

Acute toxicity

Inhalation: This material has been classified as hazardous. Acute toxicity estimate (based on ingredients): >20 mg/L Sulphuric Acid LC50, Rats: 0.375 mg/L (4 h) aerosols Ammonium Bifluoride Inhalation (rat) LC50: 0.275 mg/l

Skin contact: This material has been classified as hazardous. Corrosive to skin; Causes severe skin burns. Corrosive to eyes; Causes serious eye damage. Acute toxicity estimate (based on ingredients): >20 mg/Kg Ammonium Bifluoride Dermal (rat) LD50: >2000 mg/kg, Eye (human): 50 mg - SEVERE

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Ingestion: This material has been classified as hazardous. Acute toxicity estimate (based on ingredients): >20 mg/Kg Sulphuric Acid - LD50, Rats: ~2,140 mg/kg Ammonium Bifluoride Oral (rat) LD50: ~148.5 mg/kg

Corrosion/Irritancy: Eye: this material has been classified as a Category 1 Hazard (irreversible effects to eyes). Skin: this material has been classified as a Category 1 Hazard (irreversible effects to skin).

Aspiration hazard: This material has been classified as hazardous.

Specific target organ toxicity (single exposure): This material has been classified as a Category 3 Hazard. Exposure via inhalation may result in respiratory irritation.

Chronic Toxicity

Mutagenicity: This material has been classified as non-hazardous.

Carcinogenicity: This material has been classified as non-hazardous.

Reproductive toxicity (including via lactation): This material has been classified as non-hazardous.

Specific target organ toxicity (repeat exposure): This material has been classified as hazardous.

12. ECOLOGICAL INFORMATION

Avoid contaminating waterways.

Acute aquatic hazard: This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >100 mg/L

Long-term aquatic hazard: This material has been classified as hazardous. Non-rapidly or rapidly degradable substance for which there are adequate chronic toxicity data available OR in the absence of chronic toxicity data, Acute toxicity estimate (based on ingredients): >100 mg/L, where the substance is not rapidly degradable and/or $BCF < 500$ and/or $\log K_{ow} < 4$.

Ecotoxicity: No information available.

Persistence and degradability: The product is not biodegradable

Bioaccumulative potential: Not Bioaccumulative

Mobility: No information available.

13. DISPOSAL CONSIDERATIONS

Persons conducting disposal, recycling or reclamation activities should ensure that appropriate personal protection equipment is used, see "Section 8. Exposure Controls and Personal Protection" of this SDS.

If possible material and its container should be recycled. If material or container cannot be recycled, dispose in accordance with local, regional, national and international Regulations.

14. TRANSPORT INFORMATION

ROAD AND RAIL TRANSPORT

Classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".



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UN No: 1760
Dangerous Goods Class: 8
Packing Group: III
Hazchem Code: 2X
Emergency Response Guide No: 40

Proper Shipping Name: CORROSIVE LIQUID, N.O.S. (Ammonium bifluoride, Sulfuric acid).

Segregation Dangerous Goods:

Class 8 Corrosive Substances shall not be loaded in the same vehicle or packed in the same freight container with Classes 1 (Explosives), 4.3 (Dangerous When Wet Substances), 5.1 (Oxidising Agents), 5.2 (Organic Peroxides), 6 (Toxic Substances where the Toxic Substances are cyanides and the Corrosives are acids), 7 (Radioactive Substances), Foodstuffs and foodstuff empties. They may however be loaded in the same vehicle or packed in the same freight container with Classes 2.1 (Flammable Gases), 2.2 (Non-Flammable, Non-Toxic Gases), 2.3 (Poisonous Gases), 3 (Flammable liquids), 4.1 (Flammable Solids), 4.2 (Spontaneously Combustible Substances), 6 (Toxic Substances except where the Toxic Substances are cyanides and the Corrosives are acids) and 9 (Miscellaneous Dangerous Goods).

MARINE TRANSPORT

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.



UN No: 1760
Dangerous Goods Class: 8
Packing Group: III

Proper Shipping Name: CORROSIVE LIQUID, N.O.S. (Ammonium bifluoride, Sulfuric acid).

AIR TRANSPORT

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.



UN No: 1760
Dangerous Goods Class: 8
Packing Group: III

Proper Shipping Name: CORROSIVE LIQUID, N.O.S. (Ammonium bifluoride, Sulfuric acid).



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15. REGULATORY INFORMATION

This material/constituent(s) is covered by the following requirements:

The Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) established under the Therapeutic Goods Act (Commonwealth).

All components of this product are listed on or exempt from the Australian Inventory of Chemical Substances (AICS).

16. OTHER INFORMATION

Reason for issue: Five yearly review

This information was prepared in good faith from the best information available at the time of issue. It is based on the present level of research and to this extent we believe it is accurate. However, no guarantee of accuracy is made or implied and since conditions of use are beyond our control, all information relevant to usage is offered without warranty. The manufacturer will not be held responsible for any unauthorised use of this information or for any modified or altered versions.

If you are an employer it is your duty to tell your employees, and any others that may be affected, of any hazards described in this sheet and of any precautions that should be taken.

Safety Data Sheets are updated frequently. Please ensure you have a current copy.